

SHIP 20 JAN. 17

Work Order ID 154291

154291

Page 1

Thursday, December 08, 2016 10:48:03 AM

Item ID: 647.1305 Accept *N900040100* Setup Start *NS1*

Revision ID: Stop *NS2*

Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016 Start Qty: 1.00 *1* Cust Item ID:

Required Date: 1/20/2017 Req'd Qty: 1.00 *1* Customer:

Reference: SO128805

Approvals: Process Plan:  Date: 12-12-08 Tooling: Date: Run Start *NR1*

QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.1300	D								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 647.1305								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.01							
Quality Control									

DAS
6
9-89

JAN 03 2017

DAS
21
9-89

17-01-09

DAS
27
9-89

JAN 20 2017

JAN 08 2017

DAS
6
9-89DAS
28
9-89DAS
27
9-89

JAN 20 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
2024 28th		2024 28th		Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 154291

Thursday, December 08, 2016 10:48:03 AM

154291

Page 2

Item ID: 647.1305 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible
 Start Date: 12/8/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 1/20/2017 Req'd Qty: 1.00 ***1*** Customer:
 Reference: SO128805

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00				DAS 28 9-89	DAS 27 9-89		
130	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 647.1305 Location: _____								
Packaging	EXPIRY DATE OF: RTV Loctite 598: _____ MAGNOBOND 6398 PART 1: <u>05/30/17</u> MAGNOBOND 6398 PART 2: <u>05/30/17</u> SEALANT PR-1425: <u>05/30/17</u>								
	***INDICATE ON BOX EXPIRY DATE OF RTV, MAGNOBOND PART1, MAGNOBOND PART2 AND SEALANT PR-1425 ***								
140	QC21- Final Inspection - Work Order Release	0.00					DAS 21 9-89		JAN 2 0 2017
140	Memo	0.02							
QC	*** Enter exp. date in lot maintenance for RTV loctite 598, MAGNOBOND PART1, MAGNOBOND PART2 AND SEALANT PR-1425***								
Quality Control									

DAS
21
9-89

JAN 2 0 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Page 1

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 13.07.16 JLM VERIFIED BY:DD IPP
REV:B 14.07.31 AS PER ECN C2 DD VERF:JLM IPP REV:C
15.07.09 AS PER REV D DD VERIFIED BY:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.1402 *647 1402* Lower Cutter Assembly		Manufactured	No				Each	1.0000	**	1		JAN 0 8 2017	DAS 28 6 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				CCK048		1							
				151424		1							
647.1601 *647 1601* Wiper Deflector Aft		Manufactured	No				Each	0.0000	**	1		JAN 0 8 2017	DAS 28 6 9-89
647.1610 *647 1610* Wiper Deflector Fwd		Manufactured	No				Each	14.0000	**	1		JAN 0 8 2017	DAS 28 6 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				CCK091		14							
				125082		10							
				M130388		4							
647.0112 *647 0112* Strut Bracket		Manufactured	No				Each	41.0000	**	8		JAN 0 8 2017	DAS 28 6 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				CCK107		41							
				150114		16							
				150895		15							
				151894		10							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Page 2

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

647.2011 Manufactured No

Each 14.0000

647 2011

Lower Strut

**

2

DAS 6 28
9-89 9-89

JAN 0 8 2017

Location

Loc Qty

Loc Code

Cck021

14

123511

6

125082

8

2

NAS6604-66

Purchased No

Each 90.0000

NAS6604-66

Bolt

**

4

DAS 6 28
9-89 9-89

JAN 0 8 2017

Location

Loc Qty

Loc Code

ST553

90

124328

48

M130388

42

4

NAS1149F0432P

Purchased No

Each 1,039.000

NAS1149F0432P

WASHER

**

8

DAS 6 28
9-89 9-89

JAN 0 8 2017

Location

Loc Qty

Loc Code

ST260a

1000

M135704

1000

ST262

39

M134955

39

8

AN3-11A

Purchased No

Each 686.0000

AN3-11A

Bolt

**

12

DAS 6 28
9-89 9-89

JAN 0 8 2017

Location

Loc Qty

Loc Code

over003

664

153855

564

m136192

100

ST349

22

m135767

22

12

Thursday, December 08, 2016 10:48:08 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Page 3

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

AN3C10A Purchased No

Each 14.0000

AN3C10A

Bolt

**

JAN 0 8 2017

Location Loc Qty Loc Code

OVER002 10

m136192 10

ST349 4

m135056 4

MS27039-1-14 Purchased No

Each 688.0000

MS27039-1-14

Screw

**

JAN 0 8 2017

Location Loc Qty Loc Code

GA 94

120449 94

over006 500

124326 500

ST280 94

124326 94

601.2999 Manufactured No

Each 51.0000

601 2999

Screw

**

JAN 0 8 2017

Location Loc Qty Loc Code

CCK098 51

91707 1

93369 50

AN525-10R12 Purchased No

Each 129.0000

AN525-10R12

Screw

**

JAN 0 8 2017

Location Loc Qty Loc Code

ST329 129

102587 129

Thursday, December 08, 2016 10:48:08 AM

Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

Each

1,470.000

NAS1149F0332P

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

343

m133709

343

ST262

1127

m135948

1127

NAS1149FN832P

Purchased

No

Each

2,147.000

NAS1149FN832P

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

449

M135058

449

ST260a

1500

M136182

1500

ST263

198

M135058

198

601.2375

Manufactured

No

Each

53.0000

601 2375

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK096

53

91708

53

MS21042-3

MS21042L3

Purchased

No

Each

0.0000

MS21042-3

Nut

DAS
27
9-89

MS21042-08

MS21042L08

Purchased

No

Each

0.0000

MS21042-08

USE MS21042L08

DAS
27
9-89

Location

Loc Qty

Loc Code

JAN 08 2017

JAN 08 2017

JAN 08 2017

JAN 08 2017 136044

136301

JAN 08 2017

Thursday, December 08, 2016 10:48:08 AM

Shop Packet Print

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Page 5

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

Each

2,669.000

MS21042L4

Nut

JAN 08 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

18

m133363

18

GA

196

m135058

196

OVER007

2000

m135979

500

m136182

500

m136295

1000

ST303

455

153851

28

m135864

427

600.0990

Purchased

No

Each

22.0000

600 0990

Magnabond 6398 Part A Size 112 ml

JAN 08 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

PKG

22

M134167

1

M134249

1

M135600

8

M136142

12

600.0991

Purchased

No

Each

21.0000

600 0991

Magnabond 6398 Part B Size 112 ml

JAN 08 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

PKG

21

m134167

1

m135600

8

m136142

12

Thursday, December 08, 2016 10:48:08 AM

Shop Packet Print

Page 5

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Page 6

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

600.1012 Purchased No

Each 14.0000

600 1012

Sealant PR1425B2 (#654 sem)

**

JAN 08 2017

DAS 28 9-89
DAS 6 9-89

Location

Loc Qty

Loc Code

cck017

14

m135840

4

m136192

10

601.2045 Purchased No

Each 14.0000

601 2045

RTV (LOCTITE 598)

**

JAN 08 2017

DAS 28 9-89
DAS 6 9-89

Location

Loc Qty

Loc Code

CCK096

6

m136171

6

GA

8

m134260

8

647.2010 Manufactured No

Each 58.0000

647 2010

Upper Strut

**

JAN 08 2017

DAS 28 9-89
DAS 6 9-89

Location

Loc Qty

Loc Code

CCK094

58

106783

27

91895

29

m125082

2

AN3-15A Purchased No

Each 20.0000

AN3-15A

Bolt

**

JAN 08 2017

DAS 28 9-89
DAS 6 9-89

Location

Loc Qty

Loc Code

FG

10

114941

10

ST348

10

M132551

10

Thursday, December 08, 2016 10:48:08 AM

Shop Packet Print

Page 6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QS1042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	Past Due ☐							

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Page 7

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

647.1403 Manufactured No

Each 2.0000

647 1403

Upper Cutter Assembly, U-Channel

**

JAN 08 2017

DAS 6 9-89

DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

CCK048

2

128326

2

91292A080

Purchased No

Each 23.0000

91292A080

Screw

**

JAN 08 2017

DAS 6 9-89

DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST588

23

M127948

23

93625A300

Purchased No

Each 22.0000

93625A300

Locknut

**

JAN 08 2017

DAS 6 9-89

DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST588

22

M127948

22

93475A270

Purchased No

Each 44.0000

93475A270

Washer

**

JAN 08 2017

DAS 6 9-89

DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST588

44

M127948

44

LN9037-08018

Purchased No

Each 32.0000

LN9037-08018

Screw

**

JAN 08 2017

DAS 6 9-89

DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST564

32

m136189

32

Thursday, December 08, 2016 10:48:08 AM

Shop Packet Print

Page 7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Thursday, December 08, 2016 10:48:08 AM

Page 8

Work Order ID: 154291

154291

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 12/8/2016

Required Date: 1/20/2017

Start Qty: 1.00

Required Qty: 1.00

LN9025-0820K

Purchased

No

Each

40.0000

I N9025-0820K

Lock Tab Washer

**

8

DAS
6
9-89

DAS
28
9-89

JAN 0 8 2017

Location

Loc Qty

Loc Code

ST564

40

M136260

20

M136261

20

Each

9.0000

**

1

DAS
6
9-89

DAS
28
9-89

JAN 0 8 2017

647.2113

Manufactured

No

647 2113

Lower Rail, U Channel

Location

Loc Qty

Loc Code

CCK083

9

144770

4

149972

5

Each

0.0000

**

2

JAN 1 6 2017
DAS
6
9-89

DAS
28
9-89

JAN 2 0 2017

647.1702

Manufactured

No

647 1702

Skid Deflector Assembly

**

153319 X1

153187 X1

DAS
27
9-89

Thursday, December 08, 2016 10:48:09 AM

Shop Packet Print

Page 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date :	Step #:	QTY Effective :			MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER : ☐				

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	2	2							89	647.1703	T2 SKID DEFLECTOR ASSY		
	8	8							88	601.3812	LOCK TAB	LN9023A8-1.4544.9	
									87	647.1702	SKID DEFLECTOR ASSY		
	1	1							86	647.2113	LOWER RAIL (U CHANNEL KIT)		
	8	8							85	601.3655	WASHER	LN9025-0620K	
	8	8							84	601.3654	SCREW	LN9037-08018	
1		1	1						83	647.2112	UPPER U CHANNEL		
	8	8							82	601.3653	WASHER	93475A270	
	4	4							81	601.3652	LOCKNUT	93425A300	
	4	4							80	601.3651	SCREW	91292A080	
	1	1							79	647.1403	CUTTER ASSY (UPPER U CHANNEL)		
	5	5							78	601.3650	BOLT	AN3-15A	
REF	REF	REF	REF	REF	REF	REF	REF	REF	77	647.5701	GPS MOUNT KIT		
2		2	2		2	2		2	76	601.1954	SCREW	MS27039-1-17	
	2	2			2		2	2	75	647.2010	UPPER STRUT		
1	1	1	1		1	1	1	1	74	601.2045	RTV	LOCTITE 598	
1	1	1	1		1	1	1	1	73	600.1012	SEALANT	PR-1425 CLASS B	
1	1	1	1		1	1	1	1	72	600.0991	MAGNOBOND 6398 PART B		
1	1	1	1		1	1	1	1	71	600.0990	MAGNOBOND 6398 PART A		
4		4	4		4	4		4	70	601.3012	SCREW	MS27039-1-15	
2		2	2		2	2		2	69	601.3004	CAMLOC STUD		
2		2	2		2	2		2	68	601.3005	CAMLOC RETAINER		
2		2	2		2	2		2	67	601.3006	CAMLOC RECEPTACLE		
3 FT.		3 FT.	3 FT.		3 FT.	3 FT.		3 FT.	66	601.3011	P-SEAL		
1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	65	601.3007	GROMMET	MS21266-2N	
	2	2			2	2		2	64	601.3008	INSERT	NAS1834C3-300	
12		12	12		12	12		12	63	601.2364	RIVET	CR3213-4-8	
16		16	16		16	16		16	62	601.2468	RIVET	CR3213-4-7	
11		11	11		11	11		11	61	601.2991	RIVET	CR3213-4-6	
2		2	2		2	2		2	60	601.1039	RIVET	CR3213-4-2	
8		8	8		8	8		8	59	601.1183	RIVET	CR3213-4-5	
22		22	22		22	22		22	58	601.0790	RIVET	CR3213-4-3	
8		8	8		8	8		8	57	601.2995	RIVET	CR3213-6-6	
4		4	4		4	4		4	56	601.1915	RIVET	CR3213-4-4	
12		12	12		12	12		12	55	601.2207	NUTPLATE RIVET	CCR264SS-3-03	
4		4	4		4	4		4	54	601.1983	NUTPLATE RIVET	CCR274SS-3-03	
12		12	12		12	12		12	53	601.2980	NUTPLATE RIVET	CCR264SS-3-04	
12		12	12		12	12		12	52	600.0795	NUTPLATE	MS21047-3	
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Restructured)

ORIGINAL DATE: 07/04/99
 DRAWN BY: R. ROSAND
 CHECKED BY: D. BARBER
 DRAWING APPROVAL: P. BRAVO
 CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES ARE:
 2 PLACE DECIMALS ±.01
 3 PLACE DECIMALS ±.005
 ANGLES ± .5°

DART AEROSPACE 3030 ENTERPRISE CT., SUITE A, VISTA, CA 92081 (760)-724-5300

APICAL INDUSTRIES, INC. (DART AEROSPACE)

EC145 CABLE CUTTERS KIT

SHEET 3 OF 10

SCALE: NONE

REV. D

DATE: 07/04/99

DWG. NO. 647.1300

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

NOTES: UNLESS OTHERWISE SPECIFIED

- 1 AFTER INSTALLATION, APPLY F/N 73 A/R TO FILL GAPS AND FILLET EDGES
2. APPLY F/N 74 TO FAYING SURFACES
- 3 AT CUSTOMERS OPTION, INSTALL F/N 77 BY MATCH DRILLING ONTO F/N 1
- 4 INSTALL FOR 647.1301, 647.1302.
- 5 INSTALL FOR 647.1304, 647.1305.
- 6 APPLICABLE WHEN EUROCOPTER P/N 145-250014.11 IS INSTALLED WITH EUROCOPTER CABLE CUTTER FIXED PROVISIONS.
- 7 APPLICABLE WHEN REPLACING EUROCOPTER P/N 145-250074.11
- 8 INSTALL WITH:
647.1304
647.1305
647.1307
647.1308

REFERENCE ONLY

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1	LAST PROTOTYPE REVISION: P23		N/C
N/C	INITIAL RELEASE	08/05/09	P. BRAVO
A	INCORPORATED ECN 02943, 03020, 03048	01/25/11	P. BRAVO
B	INCORPORATED ECN 03919	07/05/13	P. BRAVO
C	INCORPORATED ECN 04059	08/13/13	P. BRAVO
D	INCORPORATED ECN'S 04485, 045921 & 04974	04/17/15	P. BRAVO

1		1	1		1	1		1	14	647.1817	SUPPORT, RH		
1		1	1		1	1		1	13	647.1912	BRACKET, LH		
1		1	1		1	1		1	12	647.1911	BRACKET, RH		
	8	8		8	8		8	8	11	647.0112	STRUT BRACKET		
							1	1	10	647.2110	LOWER RAIL		
						1		1	9	647.2111	UPPER RAIL		
	1	1		1	1		1	1	8	647.1610	WIPER DEFLECTOR, FWD		
	1	1		1	1		1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT		
							2	2	6	647.1701	SKID DEFLECTOR ASSY		
1		1	1		1	1		1	5	647.3201	GROUNDING CABLE ASSY		
1		1	1		1	1		1	4	647.2201	CROSS ASSY		
1		1	1		1	1		1	3	647.1602	DOUBLER ASSY		
	1	1		1	1		1	1	2	647.1402	CUTTER ASSY (LOWER)		
							1	1	1	647.1401	CUTTER ASSY (UPPER)		
X										647.1309	EC145 T2 FIXED PROVISIONS KIT		
	X									647.1308	EC145 T2 REMOVABLE PROVISIONS KIT		
		X								647.1307	EC145 T2 CABLE CUTTERS KIT		
			X							647.1306	FIXED PROVISIONS KIT U CHANNEL		
				X						647.1305	REMOVABLE PROVISIONS KIT U CHANNEL		
					X					647.1304	EC145 CABLE CUTTERS KIT U CHANNEL COMPATIBLE		
						X				647.1303	FIXED PROVISIONS KIT		
							X			647.1302	REMOVABLE PROVISIONS KIT		
								X		647.1301	EC145 CABLE CUTTERS KIT		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

BOM Table (Restructured)

QTY	ORIGINAL DATE RMO-34-YR 07/04/09	PARTS LIST
NEXT ASSY (S)	DRAWN BY R. ROSANO	DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)724-5300 APICAL INDUSTRIES, INC. (dtd DART AEROSPACE)
	CHECKED J. BARNER	
	DRAWING APPROVAL P. BRAVO	
	DESIGN CONTRACT NO.	
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. PLACE DECIMALS & 21 2. PLACE DECIMALS & 20 3. PLACE DECIMALS & 19 4. PLACE DECIMALS & 18	EC145 CABLE CUTTERS KIT 647.1300 SCALE NONE SHEET 1 OF 10

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	4	4		4	4		4	4	51	601.5209	LOCKNUT	MS21042L4	
1	4	5	1	4	5	1	8	9	50	601.2923	LOCKNUT	MS21042-08	
27	19	46	27	19	46	27	18	45	49	601.2943	LOCKNUT	MS21042-3	
	3	3		3	3		3	3	48	601.2035	WASHER		
2	8	10	2	8	10	2	16	18	47	601.2764	WASHER	NAS1149FN832P	
62	42	104	62	42	104	62	40	102	46	601.1607	WASHER	NAS1149F0339P	
1		1	1		1	1		1	45	601.2525	SCREW	MS27039-0807	
4		4	4		4	4		4	44	601.1952	SCREW	MS27039-1-20	
							4	4	43	601.3010	SCREW	MS27039-0810	
	4	4		4	4		4	4	42	601.3224	SCREW	AN325-10R12	
6		6	6		6	6		6	41	601.1365	SCREW	MS27039-1-10	
3		3	3		3	3		3	40	601.2198	SCREW	MS27039-1-07	
	3	3		3	3		3	3	39	601.2777	SCREW		
18		18	18		18	18		18	38	601.2459	SCREW	MS27039C1-06	
	4	4		4	4		4	4	37	601.1822	SCREW	MS27039-1-14	
10		10	10		10	10		10	36	601.2051	SCREW	MS24694C52	
2		2	2		2	2		2	35	601.2823	BOLT	AN3-4A	
1		1	1		1	1		1	34	601.1324	BOLT	AN4CH6A	
	2	2		2	2		2	2	33	601.1874	BOLT	AN3C10A	
	12	12		12	12		16	16	32	601.2826	BOLT	AN3-11A	
	8	8		8	8		8	8	31	601.2638	WASHER	NAS1149F0432P	
	4	4		4	4		4	4	30	601.3002	BOLT	NAS6604-66	
2		2	2		2	2		2	29	647.1811	SPACER		
4		4	4		4	4		4	28	647.2511	NUT		
4		4	4		4	4		4	27	647.2510	SLEEVE		
13		13	13		13	13		13	26	647.1812	SHIM		
4		4	4		4	4		4	25	647.1910	CLIP		
1		1	1		1	1		1	24	647.1810	NOSE DOOR DOUBLER		
1		1	1		1	1		1	23	647.1818	NOSE DOOR SPACER		
2		2	2		2	2		2	22	647.1813	ANGLE		
1		1	1		1	1		1	21	647.1913	TEE		
1		1	1		1	1		1	20	647.1814	GUSSET, LH		
1		1	1		1	1		1	19	647.1815	GUSSET, RH		
1		1	1		1	1		1	18	647.1915	SUPPORT ANGLE		
	2	2		2	2		2	2	17	647.2011	LOWER STRUT		
1		1	1		1	1		1	16	647.1914	BRACKET		
1		1	1		1	1		1	15	647.1816	SUPPORT, LH		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Restructured)

ORIGINAL DATE 07/06/09	DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300
DRAWN BY R. ROSANO	
CHECKED BY D. BARBER	
DRAWING APPROVAL P. BRAVO 08/05/09	
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.003 3 PLACE DECIMALS ±.010 ANGLES ±.5°	
SEE CAGE CODE B 07M26	DWG. NO. 647.1300
SCALE NONE	SHEET 2 OF 10